Saltfork Craftsmen
Artist-Blacksmith Association
April 2012

A new generation getting an opportunity to be creative at the forges during the meeting at Bob McKelain's. Sorry I lost my notes on the boy's names but if you see them at another meeting make sure to encourage them. They were doing a good job at working the metal.

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The Saltfork Craftsmen Artist-Blacksmith Association, a non-profit organization of amateur and professional artist and craftsmen, publishes this newsletter monthly. Our purposes are the sharing of knowledge, education and to promote a more general appreciation of the fine craftsmanship everywhere. We are a chapter of the Artist-Blacksmith Association of North America.

Visit our Saltfork Craftsmen Website:
www.saltforkcraftsmen.org

Notes from the Editor:

Well as many of your might have figured out by now, the post office lost the original printing of the March newsletter. After giving them ample time to find where it went, I put in a request for a refund of the postage and printed another copy. It took only 24 hours for it to get into my mailbox. Even though it was late getting to you , you still time to send in your ballots to Dan for the election of our board of directors seats that are up this year. I know that we don't have many names on the ballot but according to our by-laws we have to have an election even if the same people are running again.

Once I take the newsletter to the post office I have no control over what happens to it or how quickly it gets to your box. Bulk mail (which is how the newsletter is mailed out) can set in any location for up to three days before it must be processed. For those of you that have internet access you can always go to the website and download the newsletter. I try to have it online on the same day that I send it to print. It would also be possible for me to send it out as an email attachment but you would need to set that up with me and make sure you have a PDF reader on your computer. For those that don't have a computer or way to get it electronically and want to make sure you get the newsletter there would be the option of mailing it out first class but that would mean an increase of the dues by $15.00 a year. (Total dues of $35.00 a year) (only for those that want 1st class mailing of newsletter). We still have to maintain a 200 copy mailing for the bulk permit but I don't think that would be a problem. We have 346 members at this time and I don't see that many members opting for the 1st class rate. Just food for thought. ...till next month.

Diana Davis

President's Notes

Gerald Franklin

We have had some good meetings since the weather started warming up. It seems like many folks are glad to get out of the house and do some good forging and visiting. As in February, March saw us with four meetings scheduled along with two Basic Blacksmithing Workshops on the "fifth" Saturday. I started the month of March off at a Southeast meeting at Fort Towson. The turnout was a little light but we did have a Boy Scout Troop from Antlers there. They spent a lot of time at my forge. It's good to see interest from the young folks.

For the most part, I've noticed very good participation in the Trade Item program. The hosts are making good choices in their Trade Item selections and the members are going all-out in supporting the program. If you haven't been contributing to the Trade Item pool, I encourage you to do so. The program is strictly voluntary and the neat thing that I've noticed in the past is that the items on the tables represent a good cross section of the collective skills of our club.

Our annual State Meeting and Picnic is coming up on April 21st at Byron and Carol Doner's place in Norman. Make plans to attend. It should be a good affair.

If you haven't paid your dues, you need to do it pretty quick. Your dues are delinquent after Mar 31, 2012 and some time after that, our editor will begin to remove delinquent members from the mailing list for the newsletter.

This will be my last issue of *President's Notes,* as we will have a new slate of officers elected in April. I'm not mad and I didn't get fired, I just need to spend what energy I have a little differently. See you at the meetings.

SOUTH CENTRAL REGIONAL PAGE

Meeting dates

January 21, 2012
Host: Byron Donor
Phone #
Trade item: heart candleholder

February 18, 2012
Host: Gerald Franklin
Phone #: 580-252-6002
Trade item: feather

March 17, 2012
Host: Bob McKelvin
Phone #
Trade Item: pitchfork with three tines
Lunch: Hot Sandwich, bring a side dish/desert

April , 2012 (ANNUAL PICNIC)
Host: Byron Donor
Norman, Ok.

May 19, 2012
Host: Linda Morefield
Phone #
Trade item:

June 16, 2012
Host:
Trade items
Lunch:

July 21, 2012
Host: Richard Simpson
Phone # 405-344-7413
Trade item: Campfire tool

August 18, 2012
Host: Charles McDevitt
Phone # 580-439-8931
Trade item: something from a horse shoe

Sept. 15, 2012
Host:
Phone #:
Trade item:

October 20-21, 2012
SCABA Conf. Perry, Okla.

November 17, 2012
Host: Bill and Diana Davis
Phone #: 580-549-6824
Trade item:

December 15 2012
Host:
Trade item;
Phone:

The March meeting for the S/C region was hosted by Bob and Shirley McKelvain at their home west of Rush Spring, Ok. This was Bob and Shirley's first time to host a meeting and they were worried about the outcome but I think that everything turned out fine. There might have been a few less that want we would have liked to see and I don't know if the newsletter being late was the cause of not but everyone that came had a great time. The weather was nice except for a little wind but we couldn't have ask for better weather temperature wise. Bob got to show off his new blacksmith shop that he was been working on for the past several months.

As usual Gerald Franklin wound up doing an in-prom-to demonstration and kept many of the members gathered around his fire for most of the day. There were a lot of notes being taken and questions asked. Gerald if really good at explaining a technique and makes a great demonstrator. He has even gone down to Texas as a demonstrator for the North Texas Blacksmith Association.

The trade item was a three timed pitch fork and we had several attempt show up. We should have given a prize for the smallest and the largest for they were all good examples. There was even one that was only 2 1/2 tines as one of the tines broke during forging. It was Bob's and he went on and make another one with better results.

Shirley out did herself with the lunch that she and Bob provided. No one left hungry that was for sure. We had pulled pork sandwiches along with beans and lots of sweets to finish off with.

Next month is the annual picnic that happens to fall on the S/C region meeting date. The picnic will be held at Byron Donor's home in Norman. He has decided that the main food will be hamburgers and hotdogs. We need members to help out by bring other food items to go along with the meat.

- ***Bread (hamburger and hot dog buns)***
- ***Vegetables (sliced tomatoes, lettuce, onions, pickles, etc.)***
- ***Mayo, mustards, ketchup***
- ***Drinks (tea, sodas, water etc,)***
- ***Ice to go along with drinks***
- ***Deserts***
- ***Chips***

Please contact Diana Davis and let her know what you are bringing so we know what to expect. Thanks….

NORTH EAST REGIONAL PAGE

Meeting dates:

January 14, 2012
Host: Bill Kendall
Phone # 918-742-7836
Trade item: ladle
Lunch: provided, (possibly chili), bring a side/desert

February 11, 2012
Host: Gary Gloden
Phone# 918-321-5015
Trade item. leaf
Lunch: provided, bring a side dish or dessert

March 10, 2012
Host: Dan Cowart
Phone: 918-440-0653
Trade items: spoon, fork or knife
Lunch: provided, bring a side dish

April 14, 2012
Host: Omar Reed at Fort Gibson
Phone: 918-478-4088
Trade items: cooking item
Lunch: provided, bring a side dish

May 12, 2012
Host: Ed. McCormick
Phone #: 918-733-9844
Trade item; something made from horseshoe
Lunch: provided, bring a side dish

June 9, 2012
Host: Mike Krukoski
Phone # 918-789-2484 or cell 636-297-0329
Trade item:
Lunch: supplied, bring a side dish

July 14, 2012
Host:
Phone #
Trade item;
Lunch:

August 11, 2012
Host:
Phone#
Trade item
Lunch:

Sept. 8, 2012
Host: James Maberry
Phone # 918-440-0653
Trade item: something with a leaf on it
Lunch: supplied, bring a side dish

October 20-21 2012
State conference

November 10, 2012
Host: Matt Goyer
Phone # 918-272-8424
Trade item:
Lunch: lunch provided, bring a side dish

December 8, 2012
Host: Charlie McGee
Phone # 918-245-7279, cell 918-639-8779
Trade item: ladle
Lunch: provided, bring a side dish

March meeting was hosted by Dan Cowart's at his home near Wann, Oklahoma. No report was sent in for this meeting.

The April meeting for the NE region will be hosted by Omar Reed at Fort Gibson historic site. This is a great piece of Oklahoma History. Omar tries to provide a nice lunch but help out by bring some form of side dish. There is no way to keep food warm so make it something that doesn't require reheating. There is lots of shade trees to set up under and always a cooling breeze. There is a map on the map page to help those that are not familiar with the area.

Omar has chosen a cooking item for the trade item. This has many possibilities from spoons, forks etc to campfire tripods and trivets. Use you imagination and try your hand at something. If you need help there is always someone there to ask questions of and get pointers from. Advise is never in short supply.

I won't be there (editor) so would appreciate a write-up and two or three pictures for the newsletter. Please submit articles by the 24th of the month. Thanks...Diana

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January 28, 2012
Host: Ron Lehenbauer
Phone#
Trade item; punch/chisel/tool for shop in Fairview

February 25th, 2012
Host: Mandell Greteman
Phone #
Trade item: eye punch

March 24, 2012
Host: Eddie Horton
Phone #:
Trade item; Campfire Tool
Location; Fort Supply

April 28, 2012
Host: Tom Nelson (held in Perry at the
Phone #
Trade item**:**
Lunch: Sack lunch or on own

May 26, 2012
Host: Fred Voss
Phone #
Chisholm trail museum in Kingfisher

June 23, 2012
Host: Gary Seigrist
Phone #:
Trade item**;** something made from horseshoe

July 28, 2012
Host: Don Garner
Phone #:
Trade item: Hardy tool
Fairview shop

August 25, 2012
Host: Bob Kennemer
Phone #:
Trade item**:** cooking Utensil

Sept. 22, 2012
Host: Ron Lehenbauer
Fairview Threshing Bee
Trade item;

October 20-21 2012
State conference

November 24th 2012
Host: Roy Bell
Lunch:
Trade item: bell

December 22, 2012
Merry Christmas

Northwest Regional Meeting

Gerald Franklin

The March NW meeting was held at the Fort Supply Historic Site the 24th. The weather was great and there was a good turnout. One count I heard was 57 people but since the public was cycling through the museum complex all day, it was a little tough to get an accurate count.

Jim Carothers brought a big pot of chili and Chuck Ogden brought drinks. Others brought desserts so we were well fed at lunch.

There were four forges going to keep the members and the general public plenty of opportunity to either forge something or watch something being forged. We were set up inside the old fort's stockade area. There was plenty of room for smiths and spectators alike. Administrator Bob Rea and his staff as well as several representatives from the Oklahoma Historical Society provided a good set-up so that folks could move around and watch the happenings.

The trade item was a "campfire tool" and there were several good examples there. Some of us made ours ahead of time and others chose to make theirs there at the meeting. There was a lid lifter, a cooking fork, and a dinner bell triangle.

This was a good meeting for both Saltfork and the OHS so maybe there will be more of these in the future at Ft Supply.

January 7th 2012
Host; Bill Phillips
Phone:
Lunch: provided, bring side/desert
Trade item: steak turner

February 4, 2012
Host: Eddie Horton (Ft. Towson)
Phone #: 580-873-2634
Trade item: Heart

March 3, 2012
Host: Eddie Horton (Ft. Towson)
Phone #: 580-873-2634
Trade item: Leaf or Flower

April 7, 2012
Host:
Phone #:
Lunch:
Trade item:

May 5, 2012
Host: Bill Phillips
Phone #
Lunch: provided, bring side/desert
Trade item: spoon

June 2, 2012
Host: Ronnie Smith
Phone:
Lunch: provided, bring side/desert
Trade item: critter

July 7, 2012
Host:
Phone #:
Lunch:
Trade item:

August 4, 2012
Host: Eddie Horton (Fort Towson)
Phone #:
Lunch: Mr. Wallace Dutch oven cooking
Trade item:

Sept. 1, 2012
Host: Bill Phillips
Phone:
Lunch: provided, bring side/desert
Trade item; knife

October 20-21, 2012
SCABA Conference

November 3, 2012
Host:
Phone #:

December 1, 2012
Host:

Southeast Regional Meeting

It was a beautiful day and the temperature was fantastic! We say old friends and met some new ones and we all had a great time. We had over 40 people show up for the meeting and the cooking. We also had the local Boy Scouts troop there to earn a badge in metal working, which Gerald Franklin was so gracious to volunteer to help with. Thanks you Gerald. Robert Wallace once again demonstrated his culinary skills with a deer roast and all the fixings plus several vegetables. As always a pot of red beans and cornbread. All the food was prepared with the Dutch ovens. All the coffee and iced tea you could drink.

There were several Saltfork members attending. Gerald Franklin, Mark Hamill, Howard Bost, Dill Yeager and myself. We are so glad that there were so many to show up, we look forward to the next meeting here at the Fort Towson Historic site in August. We would also like to say Thank You to the Oklahoma Historical Society and site mgr. Mr. John Davis for their support.

See you in the smoke!
Eddie Horton

Demo opportunities:

- 2012 Rural Heritage Festival in Perry, Okla. April 28th. Contact Jim Carothers for more info. The NW Regional meeting is being held in conjunction with this event at the Cherokee Strip Museum in Perry. Tom Nelson hosting.
- April 13-15 2012..Cimarron Council of the Boy Scouts Great Southern Plains Rendezvous. This is a large event drawing 100's of scouts, adult leaders and vendors. Saltfork participation in this event is a good opportunity for out membership to share the smithing craft with a group of young people and scout leaders. In the past Levi Rutledge, Jim Carothers and Fred Voss have demonstrated at this event.

  Bring your portable forge, tools, and some project steel. Or just show up and share our fire and tools. If you want to camp out, that will be OK too. There is plenty of room in this well equipped area. You should plan to provide your own meal on Friday evening.

  The William Scout Ranch is located off of Highway 412 twenty six and 1/2 miles west of the Super Wal-Mart in Enid or 3 miles east of the Hwy 8/Hwy 412 intersection. Cleo Springs -Aline turnoff. Look for a large radio tower on the N. side of hwy 412 and a Williams Scout Ranch sign with an arrow pointing south. Turn south down this road for about 3 miles and veer left following the signs to the GSPR event site.

  If you want more info you can contact Jim Carothers or the main organizer(JB Mingus at 580-548-4485)

- June 2nd, Eddie Horton and Mark Hamill are demo-ing for the Hugo Homecoming in front for the Old Frisco Depot. Everyone is welcome to come by and help out. Usually have a good turnout.
- Pawnee Bill's Wild West Show held annually the last 3 weekends in June at the Ranch Site museum. Located on the west edge of Pawnee, Ok. Saltfork has had a blacksmith or two every weekend at the event for many years. It is a fun place to demo as well as enjoy the side and main shows. Smiths can bring their own forges and tools, there is a good place to spread out in the shade just outside the old Pawnee Bill Ranch blacksmith shop. The original shop is open for our use as well. Bring a portable box fan if you plan to use the shop forge. You will need to bring your own project steel and coal for the day. Come join the fun on Saturday June 16, 23, or 30.

  The museum contacts for the event are Erin or Ronnie Brown ebrown@okhistory.org or 918-762-2513

Smithin' with the Boy Scouts March 2012

The Saltfork Craftsmen ABA were represented by Chuck Ogden, Fred Voss, & Jim Carothers on Saturday March 3rd. Our hosts for the Boy Scouts' District Camp-O-Ree were Mandy and Brian Clagg adult leaders. The John Nichols Scout Ranch near Mustang, OK is an excellent setting for this event; we had lots of space, a good wind break, near by water, burgers and hot dogs for lunch, and lot of very interested Scouts and Adult Leaders. This was a very well organized event because of a lot of up-front hard work and planning. It is estimated that 300 people attended the event; I know for sure that we had attentive respectful groups at the smithy all day long.

As well as our smithing demonstration, there were many other teaching events such as archery, fishing, and camping skills going on. The weekend long event this year featured the EDGE method of camping. Educate, Demonstrate, Guide, and Enable (basically what Saltfork is all about).

As an example of EDGE, our smithing demos illustrated the making of a dinner bell triangle, links of chain, nails, a campfire cooking fork, and a quenched and tempered cold chisel. Chuck was well prepared for the inevitable questions about making swords. He had plenty of 16 penny duplex nails for sword stock. Not exactly what the young people asking about swords had in mind, but the small swords made from duplex nails certainly had the sword shape and provided some good entertainment.

All in all we had a great day smithing, made some new friends, renewed acquaintance with some old friends, and were very well hosted. There were several offers to share Saturday night supper with individual troops (read: Dutch oven cooking). Many of our visitors picked up Saltfork and How To Get Started Smithing literature during the day.

The John Nichols Scout Ranch is located a little SE of Mustang, OK. The address is 12104 South County Line Road, Mustang. The entrance is on the west side of County Line Road about 200 feet north of the intersection of SW 119th & County Line Road.

I ask Mandy and Brian to keep Saltfork on their calendar and to invite us back to the event next year. This was fun.

Jim Carothers

North West Regional Meeting for February.

Due to printing schedules the report for the NW region is late, but not forgotten…

The February meeting in the NW Region was hosted by Mandell and his wife LaQuitta Greteman at their home in Foss, Okla. It was held on Feburary 25th and they had a great day for it. 25 members and friends stopped by to enjoy a day for forging and friendship.

The trade item for the day was an eye punch and there were six made and brought to the meeting.

The lunch was fish fry and brown beans, there was also potato salad and lots of different deserts. I think everyone had a great time. I would like to thank everyone for their help and all the great food.

LaQuitta

Gerald Franklin received this article from the author. We hope you enjoy it.

By Paul Novorolsky [UMBA Scholarship payback article: part 2 of 3]

Tooling: Swages, Punches and Drifts

In the previous issue, I described the punching, bending and welding of "The Ring Thing". In the next 2 installments, I'll describe the tools we made, and in some cases, how the dimensions of the tools were selected.

Swages

The project required 3 swages: A half round bottom swage to hold the ½ inch round stock to avoid excessive deformation while punching, and a matched pair of top/bottom 'V' swages for shaping the sides of the square punched holes after drifting. In the class, most of us made a 4th bottom tool, a simple block used as a "narrow" anvil surface, and also for scarfing before forge welding. This allowed us each to customize the radius of the edges to our own liking, without modifying the school's anvils.

I must admit that prior to seeing this done, I felt making bottom tools like this was much more difficult than it actually is. While it is labor intensive (swinging that big hammer), it is not really all that difficult. We used a bottom swage to upset our tools to save wear on the anvils. Old anvils may not hold up to the stress of the heavy forging. I have seen hardy tools made directly in the anvil, but I would be wary of mass producing them in my good anvil.

Figure 1

A home built swage such as this is described in Mark Aspery's first book "Mastering The Fundamentals of Blacksmithing".

The upsetting swage we used at the school is shown in Figure 1. It was made by the school staff and had an interesting adaptation. There were two handles welded on the sides so that the swage could be chained onto an anvil. This made a very stable and well supported base that worked very nicely for this task.

All of our swages are started in the same way. Begin with a 4" piece of 1.25" square mild steel. The swage is first drawn to a short taper, mostly over the horn of the anvil to speed up this process. The length of the taper should be about 2½+ inches, and be drawn to

about 5/8" square at the end. This will leave just under 3" of unforged stock. The measurements here are approximate, and precision is not extremely important.
The tapered stock is then heated in the coal forge for upsetting. It is placed in the forge so that the bottom of the swage is at a higher heat than the top. The intent is that the bottom of the swage will upset more than the top at this stage. The blank is inserted into an upsetting swage (we used a 1" in square hole). Despite this strategy, the block will not upset uniformly, and it will be necessary to dress the sides of the swage during this process to keep it in shape. If the block gets out of square, 2 sides should be made parallel before squaring up the remaining 2 sides.
The final size of the "top" of the swage should be about 1 7/8" square, and about 1 ¼" tall. The "tall" dimension is more important than the surface area for these tools, as there must be sufficient thickness to drive other shapes into them, and still have them adequately support forging with them. Following final forging all of the swages were case-hardened with "Kasenite" hardening compound to increase their durability.

Half Round Swage

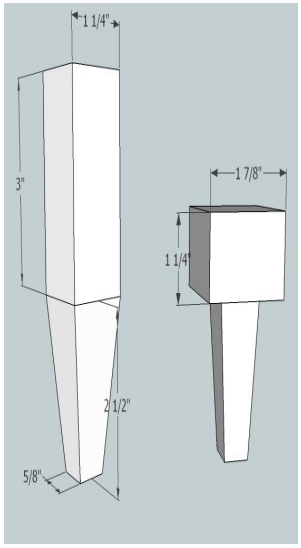


Figure 2

The half round swage is made with a ¾" round bar driven into the swage blank to make the half round depression. The ¾" size provides plenty of clearance for a ½" round bar. When forcing the bar into the swage, start at one end, holding the round bar at near a 45 degree angle at the far edge. This will reduce the surface area of the hammer blows transferred to the swage, and therefore improve the penetration of the blows. Once some depth of the far side is established, something less than 3/8" deep, start to drop the ¾" bar closer to flat. Carefully transfer the line of the swage to the near edge, and drop the bar and mark the near edge. Drop the bar further to about a 45 degree angle, and repeat the forging as was done on the far side.
At this point, the swage will have 2 depressions which are in line with each other, sort of as if a lazy "U' had been driven into the corners of the swage. We now need to join these two depressions so that there is a single half round in the swage.
To reduce the amount of effort needed, continue to use bar at an angle that becomes shallower and shallower to "walk" the forging into position. At each blow, the round bar will only be in contact with a small area, concentrating the force of the blow onto that small area. Trying to simply muscle the ¾ inch bar into the swage takes a great deal of unnecessary effort.

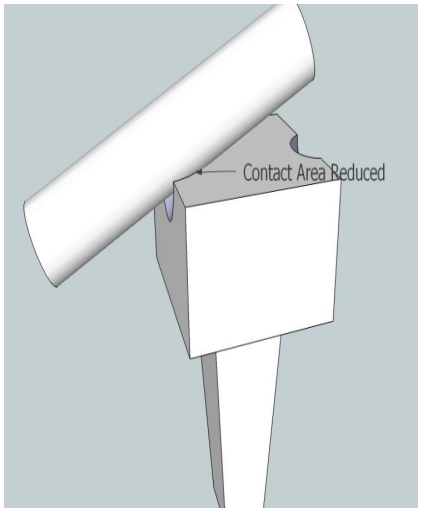


Figure 3

Once the half round is formed, the edges need to be relieved to avoid galling any work. There is no need to keep the sides of the swage dress while forging the half round depression in the swage. All sharp edges are to be avoided.

"V" Swages

The project requires 2 "V" swages. One of these will be a bottom swage; the other will be given a rod handle and used as a "Top" tool. These tools are made in the same manner as the half-round swage. There are, however, a couple of differences other than the shape of the tool. A piece of ¾" square bar was used to create the "V". The square is held on the diamond, and must be positioned so that the top edge remains in the center directly above the bottom edge. Any off-center rotation will result in a non-symmetric "V", with one leg longer than the other. In the class, most of us used the hydraulic press that was available to us.

Be mindful of the depth of the 'V'. It must be deep enough to shape the outside of the square bar after it is drifted, but if it is too deep, it won't contact the surface of the drifted bar.

When making the top swage, the swage blank should have a slightly shorter taper than the bottom tools, ending with a heavier end. This will be needed to absorb the heavy hammer blows on the top of the tool. The mild steel will deform under the hammer blows. If a harder steel is used, the hammered end should be annealed so that it doesn't shatter under the hammer blows.

A ½" fuller was used to cut into the edges of the stem near the transition to the body of the swage, and wrap a ¼" rod around it to serve as a handle. We used a piece of ¼" round, about 40" long. Take a heat in the center of the ¼" bar and wrap it around the swage to make a "U". If necessary, take another heat to get the ends of the rod near equal. Take a longer heat and position the center of the bend at the near corner, with the ends away from you. Quickly wrap both ends toward yourself, so it completes the wrap on a corner of the swage. You now have a double wrap. Dress it so that the wraps are tight to each other, and hammer gently to bring the free ends of the bar close together at the wrap. Place the rods in a vise, with the swage about 2" inches above the vise. Twist the swage about 2 revolutions to tighten the rods around the swage. The rest of the handle can be shaped to your liking. In our class, we twisted the rods together a second time, in a similar fashion, about 2/3 of the way up the remaining length, and forge welded the loose ends into a closed loop.

Punches

Two punches were made from a 7" length of ¾" round 4140 stock. The punches were made as described in "Mastering the Fundamentals of Blacksmithing".They were also covered in a recent issue ABANA's "The Hammer's Blow". The difference here is the size of the punches are specific to this project.

The struck end of the tool was given a very slight taper by bringing the round to a lazy square, and then bringing the end to an octagon shape. A video of this process is also available on YouTube.

Approximately 1 ½" from the end of the tool, an index depression is forged to help align the tool during use. The end of the tool is then filed so make a slightly crowned surface. The working ends are forged to a slight oversize, so that after hardening, the tool can be ground to final size, removing any decarburized material at the surface. The forged ends will be 9/16" x 3/16" and 3/4" x 3/16". The taper continues from the tip to the index mark. The final grinding will bring the 3/16" dimension to about 1/8" inch.

Figure 4
Punches

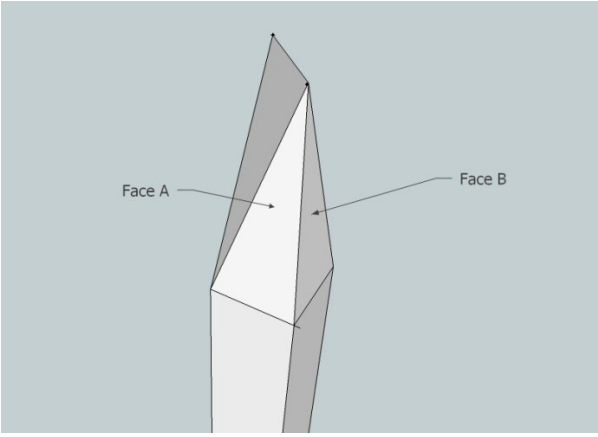
The orientation of the punches is to be 90^{o} to the index mark. This way, the index can easily be held so that the punch is in line with the bar being punched. The axial corners (those corners running parallel the long body of the tool) are broken, so that a sharp corner is not cut into the bar, creating a stress riser during use.
The punches were brought to critical temperature and annealed in vermiculite overnight prior to hardening.

Hardening and Tempering

The next day, the tools were brought back up to critical temperature, and then the lower inch of the tip is quenched in water. The piece is to be moved around during the quench to prevent forming a steam envelope, which would interfere with quickly cooling the tip of the tool. Care should be taken to keep heat in the remainder of the tool, as this residual heat will be used to temper the hardened tip.
To temper, the surface scaling should be quickly removed with a piece of abrasive stone. Keep the tool off of the anvil at this point, as the anvil will draw the needed heat from the tool. Watch the colors of the forming oxide layer run to the end of the tool. When the color becomes a “bronze”, immediately quench the tip again. Once again, polish the surface of the tip, and let the color again run to bronze. Repeat this process until there is no longer sufficient heat to draw color. Set the tool aside and let the remainder of the steel normalize.
Once the punches are cool, carefully grind to final shape and size, being careful not to overheat the tool and destroy the temper or hardening.

Drifts

Two drifts are required for the ring thing. A round drift to size the holes in the square bar for the ring to pass through, and a square drift for the piercing center bar to pass through. The square drift was made from 4140, but the round drift was made from mild steel. (a tougher steel is preferred for the round drift, but there was none available.)
As is commonly accepted, the drifts are tapered at both ends. The leading taper forms the hole, and the trailing taper, which must be longer than the thickness of the material drifted, allows the drift to fall through the hole when drifting is completed.
The square drift was made from a 7” length of 9/16” square 4140. This piece was not hardened, but allowed to normalize after forging.
The shape of the tip on the square drift is a critical component at this stage. As the drift is hammered through the hole, edges near the tip will need to line up and register with the edges of the punched hole. If these are out of line, the drift will not track squarely in the hole, and the drifted hole will be “racked” into more of a parallelogram than a square.



To make the square drift: draw an even taper about 1.5” in length that closes to about 3/8” square at the tip. It is critical that this 3/8” section is quite close to square. It will be brought to a chisel edge on the diamond and if it is more rectangular than square, the resulting surfaces (shown as Face ‘A’ and Face ‘B’ in Figure 5) will be unequal, making it impossible to drift a symmetric, square hole.
Once the initial taper is complete, turn the drift onto the diamond, and carefully forge the tip down to a blunt point (about 1/16” thick). Examine your work to see how close to you came to getting Face ‘A’ and ‘B’ (on both sides) to equal.
Some filing is expected to bring the 4 faces into symmetry. Once that is complete, forge the short taper on the struck end, and file the hammered end surface into a slight crown. The remainder of the drift should be filed smooth to reduce dragging friction as it is driven into the punched hole, and to relieve the corners so there are no sharp edges.

Figure 6

For the round drift, we began with a 4” piece of ½” round bar (Hot rolled A-36) and isolated a heat to the approximate center. The drift was then upset with just a few hammer blows, so that the upset was in the middle of the bar. About 1 inch of the struck end was then tapered, and then the leading edge was tapered to a flat taper about 1/16” x 9/16”. This would then easily fit into a punched 9/16” slot to drift it for a ½” round bar.

Sizing

Drifts must be forged slightly oversized to account for the expansion of the metal while hot. The drift itself will be slightly smaller when it cools after forging, and the hole that is hot drifted will also contract a small amount as it cools. The drift therefore must pre-adjust for 2 levels of contraction. Trial and error is an adequate technique for the final size of our drifts. Meaning that, after the initial forging to the expected size, we would test the drift, and file to size until we found the size that worked for the application. The finished thickness of my square drift (after filing) is 0.550”. Round drift is 0.560”, both measurements were taken after all fitting and filing.
Note that in addition to the oversize for contraction of the metal, the round holes need to be slightly oversized to accommodate the arch of the ring as it passed through the hole. From Figure 7, which shows the two pieces in a cross-section, you can see that in order to pass the ½” round bar shaped into a 3” inside diameter ring through the ½” square bar, the actual clearance required is just under 9/16”, so a 9/16 drift will produce a properly sized hole.

The measurement in Figure 7 was taken directly from Sketchup, so it's accuracy is subject to my drawing skills. Hopefully, it conveys the point that the hole must be larger than the simple diameter of the bar passing through it.

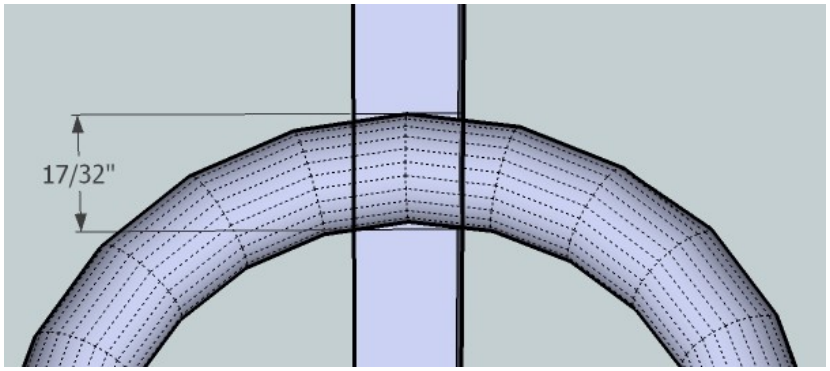


Figure 7 Cross-section of ½" round through ½" square

Similar considerations need to be made for the square bar passing through the ring. The hole is punched and drifted before the round bar is bent into a ring. Then on bending, the inside surface is compressed making the inside hole slightly smaller, and the outside diameter surface is stretched, making the outside hole slightly larger. In order to avoid making additional drifts, a slightly undersized 9/16" square drift was selected. The holes in the ring are re-drifted after the ring is formed, so we remain with a drift that is slightly under 9/16" at its widest point.
Both drifts are tested with sample pieces and adjusted so that the bars pass thru with sufficient clearance for assembly, yet tight enough so that the fit is not excessively loose. Note that the square holes in the square bar are further shaped between the top and bottom tool to their final dimension. So be sure to have those tools available while adjusting the square drift.

Next issue: Bolster, scrolling wrenchs and cones.

Kinyon Simple Post Vise

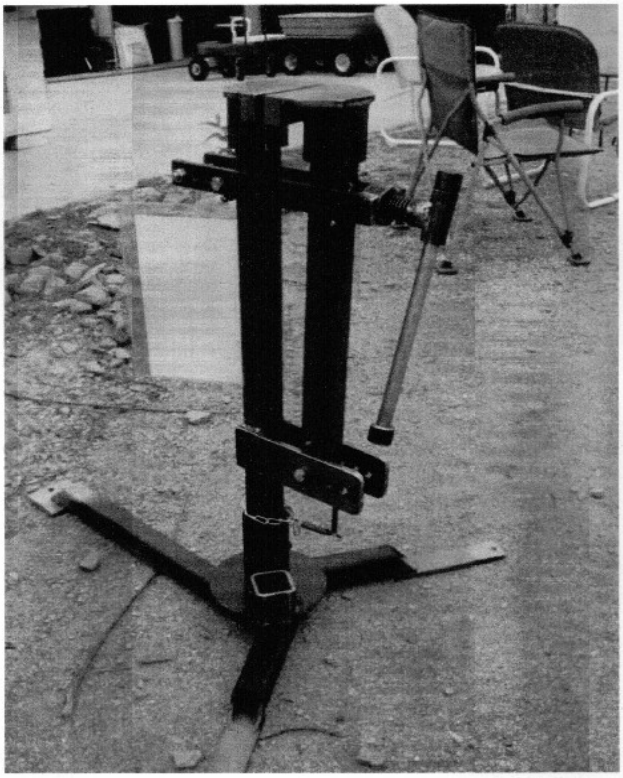
Answering a plea for a simple post vise, Ron Kinyon came up with an alternative to trying to find and buy a 100 year old vise or spend big on a new Pakistani made vise. We think this vise actually performs better than the alternatives.

- The jaws are removable which allows them to be virtually any size and shape.
- The jaws have a bit of clearance to the posts, which allows some conformity to tapered work.
- The bottom pivot is adjustable to accommodate widths up to 4" while maintaining parallel jaws.
- The vise can be built any height.
- Build cost is around $150. (depends on choice of base and number and style of jaws).

The posts are 2 x 2 x 1/2 wall box tube. The jaws are built on receiver tube cut 3" long (2 1/2 x1/4 wall box). 1 x 1 1/2 cold rolled steel make the jaws. 3/8" x 3" strap makes the top jaw gusset and the lower pivot brackets. 3/8 x 1 1/2 strap is used for the clamp. Grade 8 bolts make the pivots and the clamp stop.

The screw is 1 1/4" Acme because the nut is 2" across the hex. The Acme threaded rod can be purchased from Enco in 3' or 6' lengths. However, each vise only requires 4 1/2". A little lathe work is required.

Options for the base include 3 legs, a base big enough to stand on, and a receiver tube concreted underground (making the vise solid with the earth, but removable for storage).

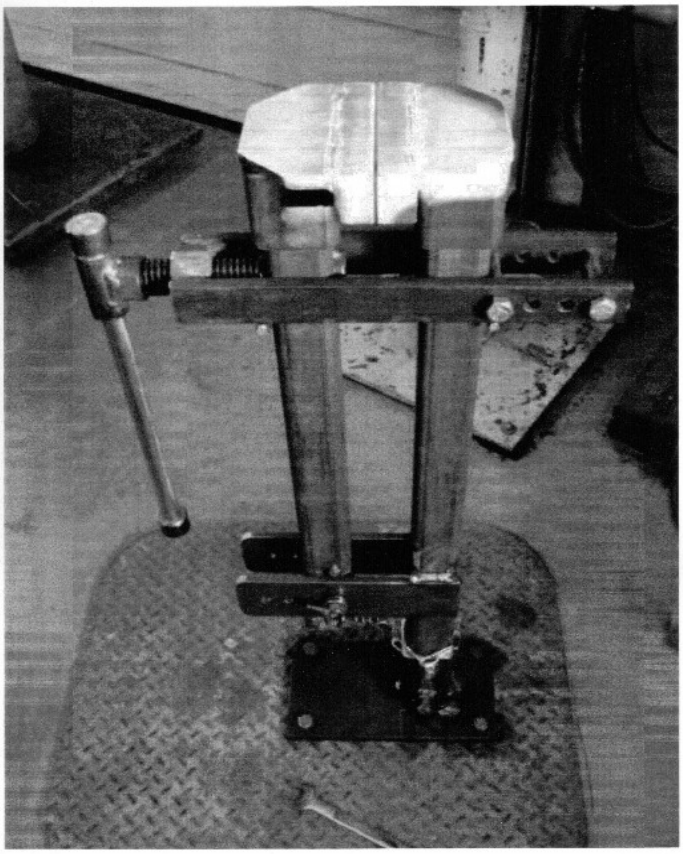


Ron used receiver tube to attach the bottom of the vise to the base. Here you see two possibilities.

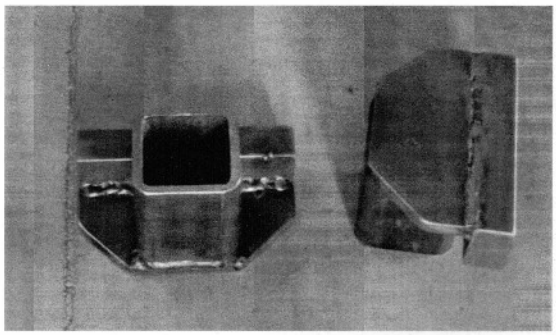
R: Notice he welded the tube to a smaller plate and bolted it to the large plate. It would be difficult to weld to the large plate without it warping, which would make the base wobble.

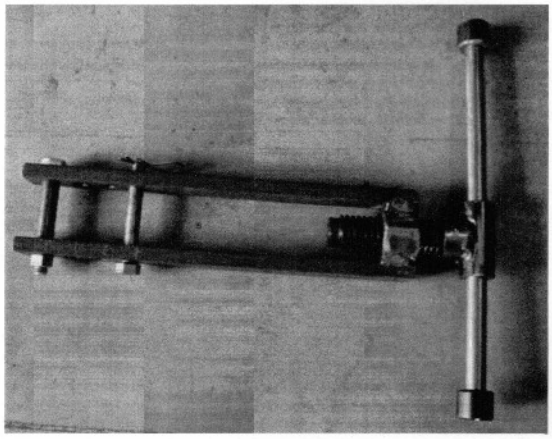
Ron is planning to host a few vise building workshops sometime in the future. If you are interested in attending one email Ron at ronkinyon@ aol.com

If you build one on your own let Ron and I know what great ideas you came up with.



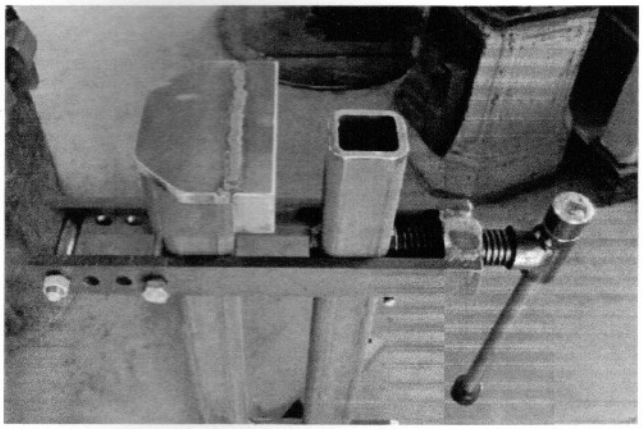
Jaws: the 3/8" gusset is flush with the top of the 1 x 1 1/2 and tops the 2 21/2 square tube. Clamping and carefully tacking the pieces before welding will keep everything square. These jaws are 5" long, but they could be any length. All material is mild steel, so far. We don't know if another material would be advantageous.





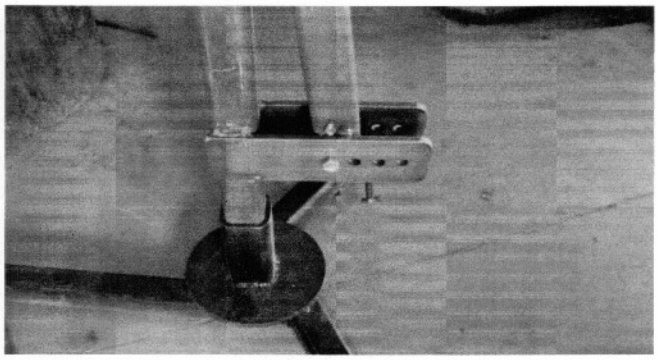
The bolt at the left has a piece of tube 2" long to keep the clamp spaced properly.

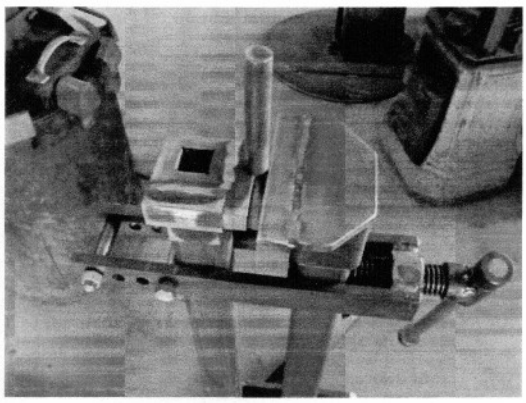
The 4 1/2" long acme screw is turned to 1" diameter on the clamping end which will allow the screw to be removed if it mushrooms during use. The other end is turned to fit the ID of the 1" x .125 DOM (3/4"). The handle is 3/4" with the DOM forming the end stops.

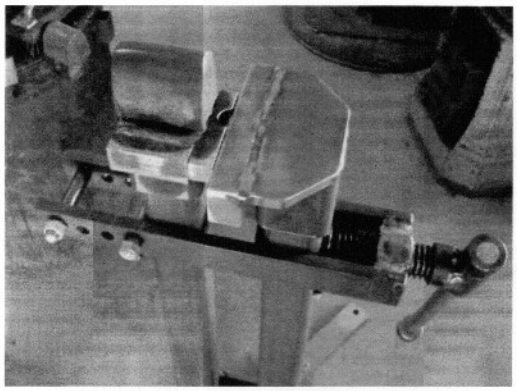


The ends of the posts are left open. The 1/2" diameter pivot holes and the clamp holes are 1" apart. The hole in the moveable post is drilled 1/4" off center which allows the post to be turned 180 degrees for a 1/2" adjustment. The 1/2" adjustment may not be required, as the jaws hold tightly throughout 1 inch of adjustment..

The pivot tube fits tightly in the 3/8 x 3" plates to keep it from moving left and right. The bolt protruding downward from the outside of the pivot tube retains an extension spring. The other end of the spring is connected to a hook on the fixed post with a 4" length of chain. When the pivot point is moved to another hole, the chain can be lengthened.



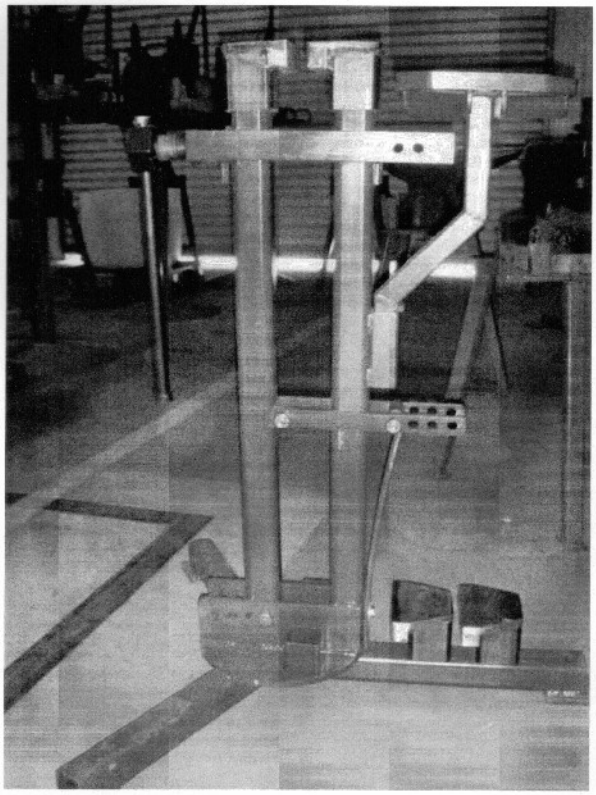




Ron made one jaw with a 1" square hole to fit his hardies.

Kinyon Post Vise: Another version

by Dan Jennings



This is my version of the Kinyon post vise. I moved the pivot point to the bottom of the fixed leg to give the pivot plate more support and to reduce the angle of the jaws. We haven't noticed a significant improvement for the user over Ron's configuration..

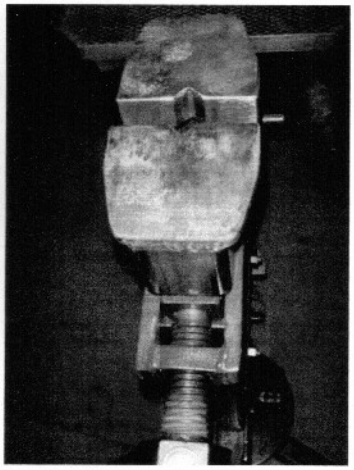
I used a 2" wide leaf spring and linkage because I didn't have room for the return spring below the pivot bolt like Ron used. It works well, but added work and complexity.

I added a removable shelf because I always need a place to stow bending forks, hammers and tongs. If I had moved the clamp down 1", I could have used a piece of receiver tube to hold the shelf.

Ron welded 1" x .125 wall DOM to the screw to hold the handle. I didn't have the DOM so I used a big nut that I had. It works fine, but the DOM is easier to build.

I think a post vise should be about the same height as the user's anvil. This one is a little shorter than Ron's.

I added some 2" box tube cut 2" long to the base of the vise to hold the extra jaws.



The V notches in these jaws were Doug Kluender's idea. They hold any size hardy, tapered or straight and hold them very tight.

I plan on building 2 more sets of dies, but haven't decided on a configuration, yet.

I used an acme threaded rod and nut from a scaffold jack, because that is what I had. I'm concerned it may not hold up very well because the nut is thinner than the purchased acme nut. If it does wear out, replacement will be easy.

In the photo at the left there is a piece of 1/4 x 2 x 2" strap with a hole to accommodate the turned end of the screw. Inside the hole I put an 1/8" thick disc of brass for the screw to bear against. The brass acts as a thrust bearing and keeps the screw from galling on the 2" box tube. The hole acts as a guide for the screw.

Left Photo: The first time I used the vise, I found the shelf was in the way of my twisting wrench. I made the shelf 9" x 6" . I need to turn it 90 degrees to eliminate that interference.

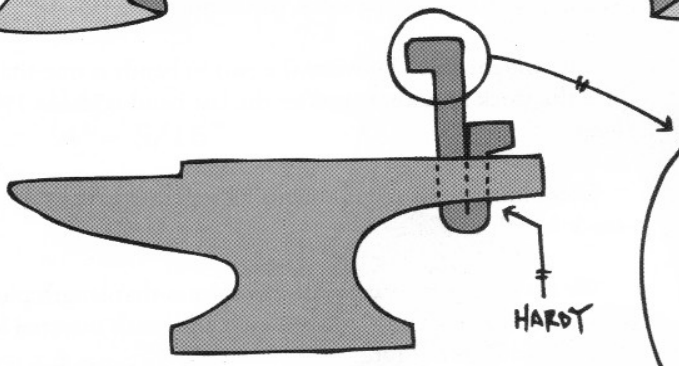
Wrap up

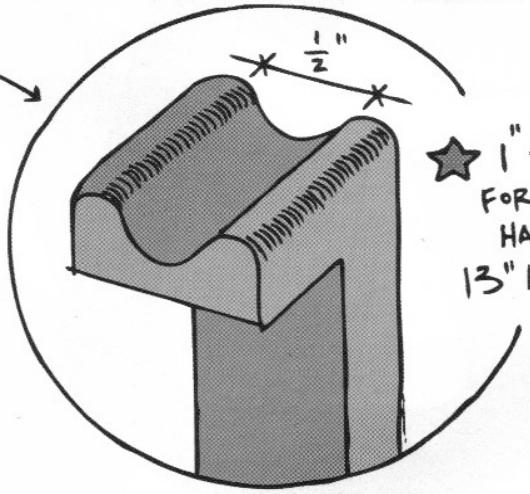
The goal was to design and build a post vise that was affordable and available. The result is a design that holds better than traditional post vises. With traditional post vises the jaws are designed to be parallel at a specific dimension, usually around 7/8" + - . Smaller stock is only held on at the top of the jaw, larger only at the bottom. We get full jaw contact from 1/4" to 1" which holds the stock very well.

The ability to build alternate jaw configurations is mind boggling. Just having short 3" long jaws would often solve a forging problem. Burying a receiver tube in the ground and having the vise connected to the earth and still be portable is another possible attribute.

Ron is planning on having a vise building workshop, but many of you can and will build your own. Ron and I would appreciate your feedback and ideas. Of course, if you build one, please send me photos.

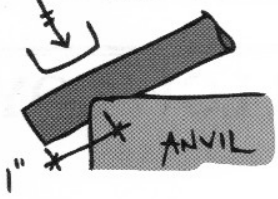
The Crimping Stake



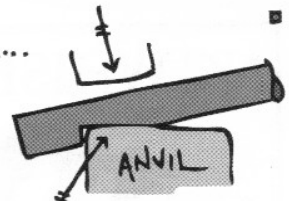


★ 1" x 1/2" BAR FOR A 1" ø HARDY HOLE 13" LONG TO START

1. ▪ BEGIN W/ HARDY END.
▪ FLAT SIDE DOWN, LAY OFF 1" AND SHOULDER IN TO 1/2 THICKNESS.



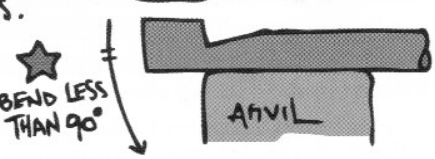
THEN...



▪ DROP THE ANGLE OF THE BAR AND FLATTEN BEHIND THE ISOLATED MASS.

▪ TAPER BACK TO PARENT STOCK

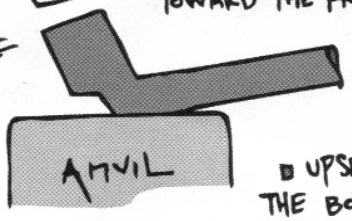
2. ▪ STRIKE OFF THE FAR SIDE OF THE ANVIL. STAY LESS THAN 90°



★ BEND LESS THAN 90°

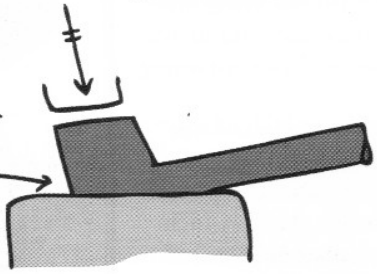
3. ▪ HAMMER IN A DOWNWARD ARC TOWARD THE KNEES.

▪ FLIP THE PIECE OVER



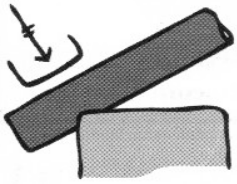
4. ▪ THIS WILL UPSET THE MASS INTO A RIGHT ANGLE BEND

▪ UPSET UNTIL THE BOTTOM HITS THE ANVIL



5. ▪ SQUARE UP THE END ON THE SIDE OF THE ANVIL
▪ KEEP THE BAR OFF THE ANVIL FACE TO PREVENT COLD SHUTS

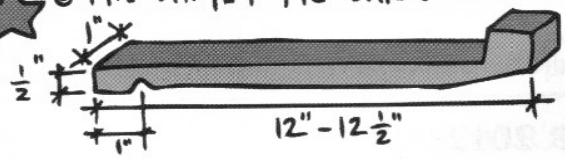
6. ▪ @ OTHER END OF THE BAR, REPEAT STEP 1



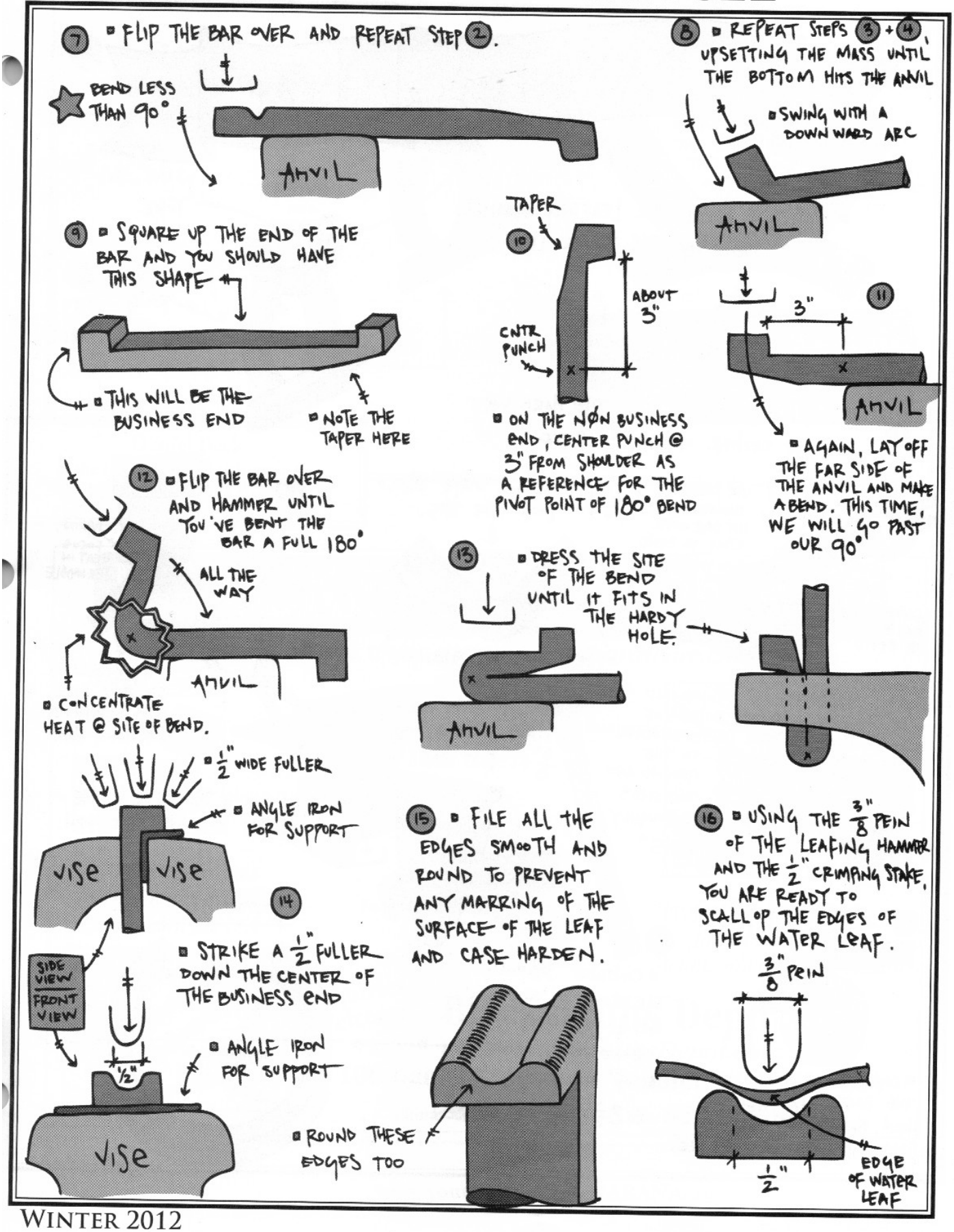
▪ MAKE SHOULDER ON OPPOSITE SIDE OF 1ST STEP MASS.

▪ DO NOT TAPER BEHIND THE SHOULDER

★ @ THIS STAGE, THE BAR SHOULD LOOK LIKE THIS

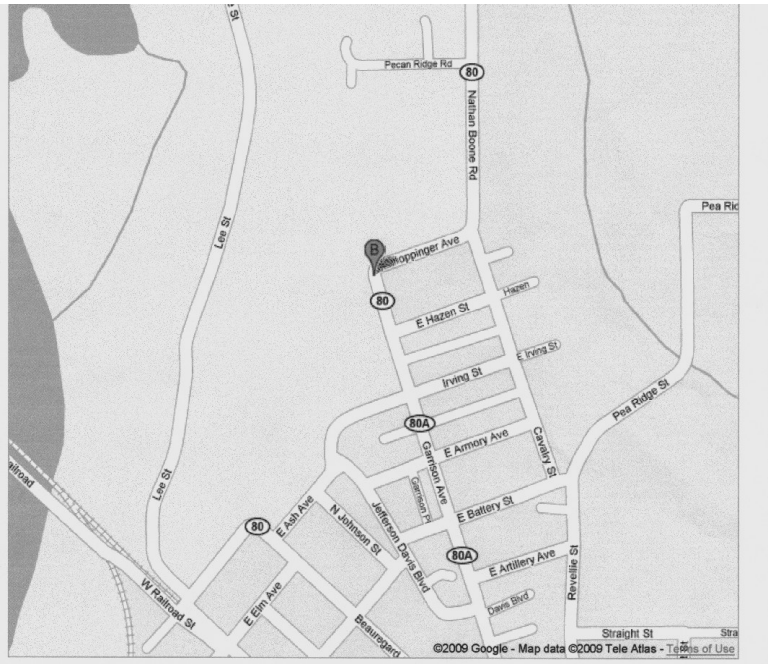


DANIEL BECK ARTICLE



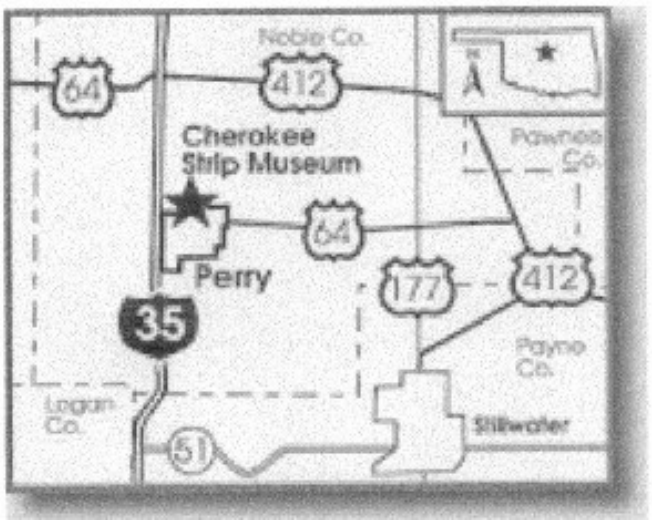
Map page:

Map to Fort Gibson.



Directions to Byron Donor's place for the Picnic:
From south take I-35 to exit 108A Highway 9 east go 7.9 miles to 60th ave SE. turn (L) north and go 2 miles. Turn ® east on Alameda St. and go approximately .6 miles to 6520 Alameda. South side of road, white 2 story house with a sail boat in the front of shop. Coming from the North you have to get off I-35 on Highway 9 east/Lindsay exit. If you get lost my cell is 405-650-7520

Directions to Tom Nelson's meeting at the Cherokee Strip Museum.
The Cherokee Strip Museum is located in Perry, Oklahoma at 2617 West fir Street.



This is an annual event with lots of attractions to interest the whole family. Bring the kids and enjoy the day.

Workshop Schedule 2012

Gerald Franklin

The 2012 workshop schedule has been fleshed out. Take a look at the following list and mark your calendar for any workshops that you think you may want to attend. Enrollment will open on the 10th of the same month the workshop is being held. Complete enrollment information will appear in the newsletter the month before the workshop is scheduled.

March 31, 2012—***Basic Blacksmithing Workshop*** at Elk City in the Route 66 Museum Blacksmith shop. Instructors are Don Garner and Dorvan Ivey. Cost is $20.00 which includes materials and lunch. Sign up open immediately. Contact Bob Kennemer to register. 580-799-1878 or 580-225-3361

March 31, 2012 – ***Basic Blacksmithing Workshop*** at Bill Kendall's shop in Tulsa. Instructors will be Bill Kendall and Dan Cowart. Enrollment opens at **NOON on March 10**. Email Dan Cowart (ddcowart@gmail.com) then to get your name on the list. You may also call Dan at 918-440-0653. Again, you won't be able to enroll before **NOON on March 10.** Cost: $20.

June 30, 2012 – ***Decorative Punch Workshop*** at Gerald Franklin's shop near Duncan, OK. Learn to make and use various punches and chisels to enhance your work. This is a "cold shop" workshop with no forge work. Enrollment info will be in the May and June newsletters. Cost: $10

September 29, 2012 – ***Veining Hammer Workshop*** at the Major County Historical Society's shop in Fairview, OK. Mike George will guide you through forging a veining hammer for use in repousse' and leaf work. Enrollment info will be in the August and September newsletters. Cost: TBA.

December 29, 2012 – ***Basic Blacksmithing Workshop*** at Gerald Franklin's shop near Duncan, OK. Enrollment info will be in the Nov and Dec newsletters. Cost: $20

This page will be in each newsletter as a reminder of the workshops that are available to the membership. Please take note of the locations, registrations times and cost for each.

SCABA Shop and Swap

For Sale:

6" round nosed pliers (great for putting scrolls on small items) $5.00 each. Brooms tied, $25.00 on your handle
Contact Diana Davis at Diana.copperrose@gmail.com

For Sale:
24"(wide) x 1"(thick) Ceramic fiber blanket (similar to Kao -wool) $1.00 per inch of length. Twisted solid cable 1/2" diameter $2.00 per ft.
Contact Larry Roderick at 940-237-2814

Wanted:
Advertising Coal Hammers, Contact Mike George at 1-580 -327-5235or o Mike-Marideth@sbcglobal.net

Club Coal

Saltfork Craftsmen has coal for sale. Coal is in 1-2" size pieces The coal is $140.00/ton or .07 /pound to members .**No sales to non-members.**

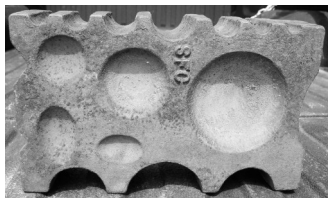
NW Region coal pile is located in Douglas, OK. If you make arrangements well in advance, Tom Nelson can load your truck or trailer with his skid steer loader for a fee of $10 to be paid directly to Tom. Tom has moved his skid steer and must now haul the loader to the coal pile to load you out, hence the $10 charge. You may opt to load your own coal without using Tom's loader. The coal can be weighed out at the Douglas Coop Elevator scales. Contact Tom Nelson (580-862-7691) to make arrangements to pick up a load. Do not call Tom after 9 PM!! Bring your own containers and shovels. Payment for the coal ($.07 per pound) should be made directly to the Saltfork Treasurer.

NE Region coal location: Charlie McGee has coal to sell. He lives in the Skiatook, Oklahoma area. His contact information is:
littleironworks@gmail.com or (home) 918-245-7279 or (cell) 918-639-8779

Show pride in your organization by displaying one of our tags on your vehicle. We still have the Saltfork Tags on sale while supplies last. You can order one for $5.00 each. Contact the editor for more info.

We have coffee cups for $9.00 and We just got in a new shipment of caps for $10.00. We have "Fat head" hats for those having trouble finding a hat to fit.

SCABA swage blocks
$80. plus shipping to members. (1st block)
$100.00 plus shipping to non-members
Contact Bill Kendall for more information



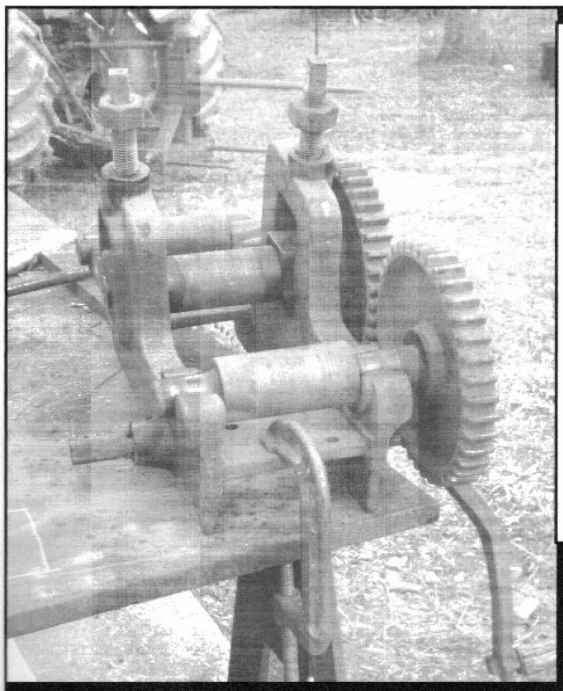
SCABA Floor Cones are now available from Bill Kendall, Byron Donor and Gerald Franklin. The price is $200 plus shipping and handling.

For Sale:
One 50# "Transition Style", Little Giant Power Hammer, In excellent condition. We are currently using it in our shop. It comes complete, ready to run with two sets of dies. $3750.00 fob Alva Okla. Pictures available on request.
Mike George at 580-829-1968 or George.purchasing@yahoo.com

For Sale:
Crowberg blacksmith Coal. I was told the BTU was 12000-13000. the coal is located at Texhoma, Oklahom in the Oklahoma Panhandle in Texas County. I am selling it for $20.00 for 100 lb or $400 for a ton. If interested call Keith Latham at 806-355-5511 evenings to arrange a Saturday or Sunday pick up.

Jim White has the following items for sale:

- Champion #430 combination coal forge coal forge. 38x52" has #400 blower, steady rest, coal box, water trough
- Shop Coal forge 32"x40" Has; tong rack, steady rest, water trough
- Portable coal forge (3) legs 19" fire pan. Has tong rack, steady rest.
- Canady Otto 12" blower on factory stand
- Champion 12" blower on factory stand
- Champion 6" blower pipe factory stand
- 110V. 6" blower with mounting bracket
- Peter Wright 252lb anvil. 1 1/4" hardy hole 5/8" pritchel . X-good face and horn
- Molock 25 lb power hammer, brass bearing (all) with grease zerks
- Clarke table model drill press with quick adjusting chuck. 0"-1/2" capacity
- All equipment in x-good condition and ready for use.
- Call for more information and delivery options. Jim White 817-329-5297



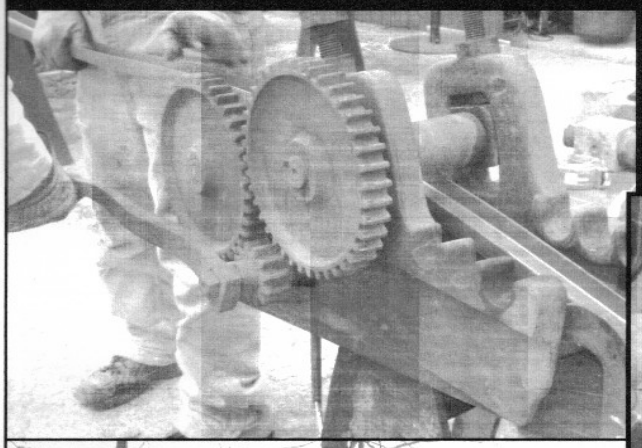
Wagon Wheel Bender….. Not just for wagon wheels anymore

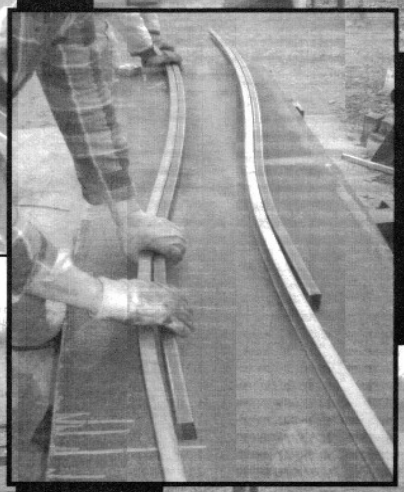
Cullman forge members Paul Wallace and Allan Kress pulled out the old wagon wheel bender to bend the channel iron and tubing for Paul's new gate.

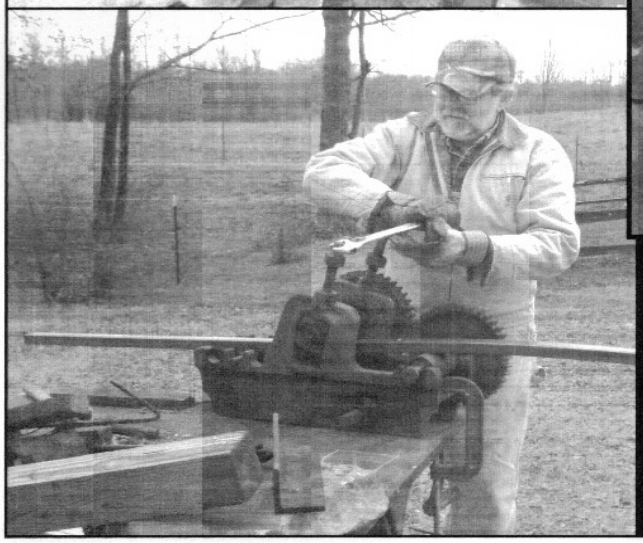
The rollers are adjustable (see bottom left) and removable pins on the far side of the roller (top left) allow lots of variables for bends.

This method works best with thick walled tubing, thin walled will crimp or wrinkle. Allan was able to anchor the channel iron in the bender and push on it to remove places where they bent a little too far. It is wise to sneak up on it though.

For this gate there were matching opposite 'S' curves in the top rail. It is best to bend those at the same time. If you bend a little on one and bend a little on the other, comparing them along the way, the match is a lot easier to achieve than if you try to match a completed 'S' curve.







2012 Annual Saltfork Craftsmen ABA Picnic

Before we know it April will be here and it will be time for another get together. This years Picnic will be hosted by Byron and Carol Donor at their home in Norman. The board and Byron will be finalizing plans for food and games that will be taking place this year. If you have any suggestion as to food you like or forging games you would like to see at this years picnic, please email or call one of the board members to let them know. I'm sure they will be glad to here from you.

One of the items that Gerald Brostek has going is the nail board. We had a nail tree at the last conference and it was a great hit, but some people done have room for such a large item, so Gerald Brostek came up with a beautiful cedar board to put the nails into. (see picture) He has been taking it around and getting people to make their best nail to put in the board. He still has a lot of room left and want everyone to get a nail made so that as many members as possible can be represented on the board. If you want to make a nail but live out of state and can't get to a meeting, please mail your nail to Gerald Brostek (his information is on the board of directors list) and he will gladly install it. Please keep the nails a reasonable size so that it doesn't split the wood when installed. The board will be at the picnic. There will be forges at the picnic also so if you need some help making a nail, there will be members there to help you. If you already have a nail made bring it and lets fill up the board. We want the board filled by the 2012 SCABA conference in October. It will be auctioned off at that time.

A nail making contest has been suggested for the picnic and the details are still being worked out but practice up on your nail making and bring your favorite hammer and enjoy. I'm sure it will be a lot of fun. I might even have to try my hand at it.

There will be some family type classes during the picnic. You will need to RSVP so enough materials will be on hand for everyone to participate that wants to. There will be a reasonable cost associated with each class to cover those materials.
Teresa will be demonstrating fold forming of copper and you will be able to make some items that can be made into jewelry. There is a $20.00 cost and a limit of 10 students.
Diana Davis will have some PMC clay and you will be able to make some charms to add to a bracelet. The cost of this class will be determined by the cost of Silver when ordered. I plan to order the silver clay about 15 days before the picnic in order to get it in time. You must contact me by April 1st. If you want me to purchase you the necessary supplies. I estimate the cost of the class to be between $30.00-40.00 dollars. This clay (when fired) become .999 pure silver. The charms you make will be about the size of a nickel and you should be able to get 4-5 charms from a 9gram pkg. They will be added to a silver plated chain that you can then add beads, etc to. It will be a lot of fun and will give you the basic skills so you are ready for the conference where we will be working with bronze clay.

The board usually provides the meat for the picnic with the members providing the sides and deserts. Check out the info in the S/C regional meeting page for food suggestions.

Mark your Calendars for April 21st and make plans to be in Norman Oklahoma for the Picnic…

SCABA membership application

New_____ Renewal_____

January 1 2012—March 31– 201__

Please accept my application Date:_____

First Name _____ Last Name _____

Married? ___ Yes ___ No Spouses Name _____

Address _____

City _____ State _____ ZIP _____

Home Phone (___)_____ Work Phone (___)_____

E-Mail _____ ABANA Member? ___ Yes ___ No

I have enclosed $20.00 (per year) for dues to March 30, 201__

Signed_____

Return to: Saltfork Craftsmen Membership, Diana Davis 23966 NE Wolf Rd. Fletcher, Okla. 73541

ABANA | NEW & RENEWAL MEMBERSHIPS

Name : _____ Membership ID # _____
(For renewals. Optional but very helpful)

Business Name (optional) : _____

Street : _____

City : _____ State/Prov : _____

Zip/PC : _____ Country : _____

Phone : _____ Fax : _____

E-mail : _____ Website : _____

Membership Type: ☐ New ☐ Renewal

Regular (US, Mexico, Canada)	One Year – ☐ $55	Two Years – ☐ $105
Senior Membership (65+, US, Mexico, Canada,)	One Year – ☐ $50	Two Years – ☐ $95
Full-time Student (US, Mexico, Canada)	One Year – ☐ $45	Two Years – ☐ $85
Foreign	One Year – ☐ $65	Two Years – ☐ $125
Contributory Membership *(amounts above $55 / year may be tax deductible)*	One Year – ☐ $150 and up – $_____	Two Years – ☐ $295 and up – $_____
Public Library (US, Mexico, Canada)	One Year – ☐ $45	
Educational Institution	One Year – ☐ $250	

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